PERFECT HEAT.

RGS SERIES RANGE

Installation Guide

MODELS:

RGS-305
RGS-366
RGS-364GL
RGS-364GD
RGS-484GG
RGS-486GL
RGS-486GD
RGS-485GD

A MESSAGE TO OUR CUSTOMERS

Thank you for selecting this DCS RGS Gas Range. Because of this appliance's unique features we have developed this Installation Guide. It contains valuable information on how to properly operate and maintain your new appliance for years of safe and enjoyable cooking.

For your convenience, product questions can be answered by a DCS Customer Service Representative by phone: 1-888-281-5698, Fax: 714-372-7004, email: support@dcsappliances.com, or by mail:

DCS
Attention: Customer Service
800 Skylab Road
Huntington Beach, CA 92647

www.dcsappliances.com

WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

PRECAUTION

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

FOR YOUR SAFETY

IF YOU SMELL GAS:

- ***Do not try to light any appliance.***
- ***Do not touch any electrical switch; do not use any phone in your building.***
- ***Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.***
- ***If you cannot reach your gas supplier, call the fire department.***

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE.

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INTRODUCTION

The DCS Professional series ranges are designed with a large number of features available in a multitude of different combinations. Top burner sections, thermostatic griddles, and grills are available as complete freestanding ranges.

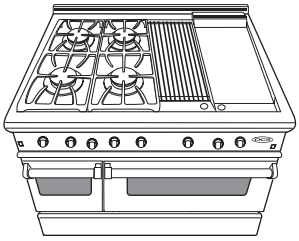
The large capacity gas convection ovens of the RGS series are equipped with an in-oven gas infrared broiler. The smaller gas oven found on the 48" RGS series is ideal for baking smaller dishes. All range models require the installation of one of the two offered Backguards if installed with less than 12" to combustible material. See pages 11 and 12.

IMPORTANT INSTALLATION INFORMATION

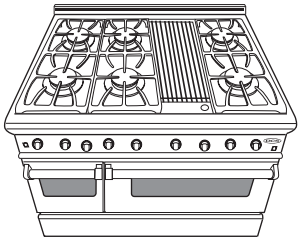
The RGS series ranges are tested in accordance with ANSI Z21.1 Standard for Household Cooking Gas Appliances. These ranges must be installed in conjunction with a suitable overhead vent hood. See Step 2 for ventilation requirements). Due to the professional high heat capacity of this unit, particular attention should be paid to the hood and duct work installation to ensure it meets local building codes. To eliminate risk of burns or fire by reaching over heated surface units, cabinet storage located above the surface units should be avoided. Check local building codes for the proper method of range installation. Local codes vary. Installation, electrical connections, and grounding must comply with all applicable codes. In the absence of local codes, the range should be installed accordance with the National Fuel Gas Code ANSI Z223-1-1998 and National Electrical Code ANSI / NFPA 70-1990. Be sure that the unit being installed is set up for the kind of gas being used. The gas ranges are shipped from the factory set and adjusted for natural gas or LP (propane), depending on the specific model ordered. **Verify that the range is compatible with gas supply at the installation site before proceeding further.** Return range to dealer if unit is not set for site gas supply.

MODELS

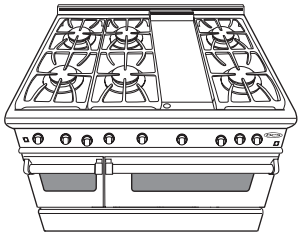
48" RGS RANGE MODELS



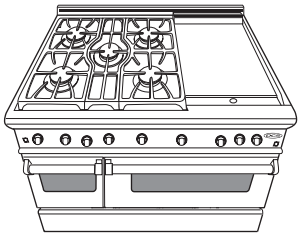
RGS-484GG



RGS-486GL

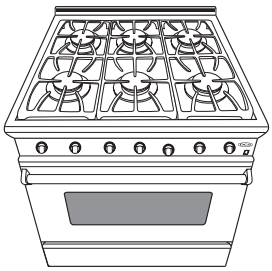


RGS-486GD

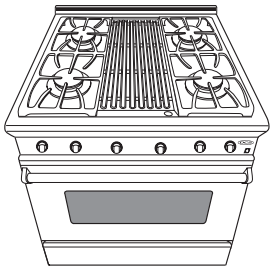


RGS-485GD

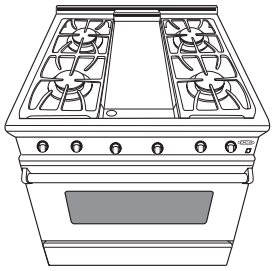
36" RGS RANGE MODELS



RGS-366

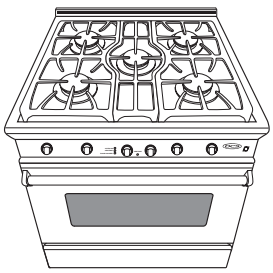


RGS-364GL



RGS-364GD

30" RGS RANGE MODELS



RGS-305

PLANNING THE INSTALLATION

RECOMMENDED INSTALLATION INSTRUCTION
Install components in the following order:

A) Vent Hood

B) Backguard System

C) Range

1) Locate and level range according to range installation instructions.

2) Measure distance from floor to top of island trim on range adding 1/8" for backguard clearance.

3) Transfer this measurement to the wall. This will mark the bottom of your backguard.

4) From this line measure 28" up wall to mark top of 30" backguard. This is the minimum height that the bottom of your vent hood can be installed.

6) Follow vent hood manufacturer's installation instructions to install vent hood.

7) Follow backguard installation instructions to install backguard.

8) Connect gas and electric connections and slide range into position.

UNPACKING AND HANDLING

STEP 1:

MOVING AND PLACING THE RANGE
The ranges have shipping weights varying from 380lbs. to 600lbs. After removal of packing material, it is recommended that the door(s), grates, front kick panel, and drip pan (below knobs) be removed to facilitate handling. This will reduce the weight for ease of handling.

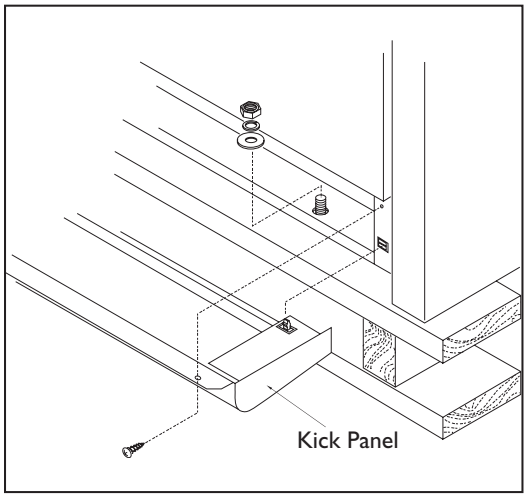


Fig. 1

UNPACKING AND HANDLING

CAUTION:

Proper equipment and adequate manpower must be used in moving the range to avoid damage to the unit or the floor. The unit is heavy and rests on adjustable steel legs.

WARNING:

DO NOT lift range by the oven door handles!!

WARNING:

DO NOT remove the grill or griddle assemblies!!

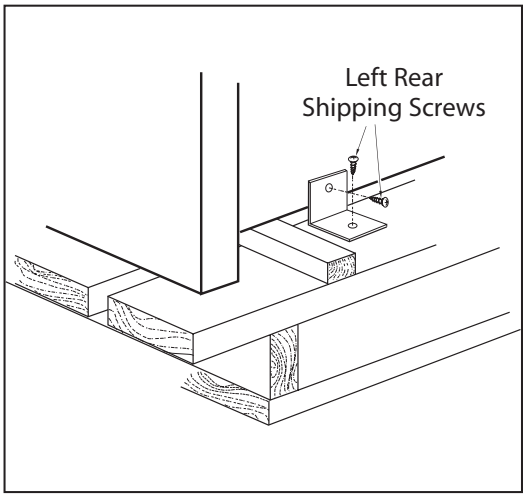


Fig. 2

It may be necessary to remove the oven doors and knobs to pass through some doorways. With the doors and knobs removed, a 29 1/16" (RGS-36/48) or 29 3/8" (RGS-305) wide opening is required. Without removing the door, a 31 1/2" (RGS-36/48) or 30" (RGS-305) wide opening is required. Remove the outer carton and packing material from the shipping base.

Remove the kick panel by removing two screws at the top and pulling forward. The range is held to the skid by two bolts in the front behind the kick panel, (fig. 1 pg. 5) and two L-brackets located on the bottom flange of the range back (fig . 2). After removing the bolts and brackets, the range must be lifted and removed from the skid.

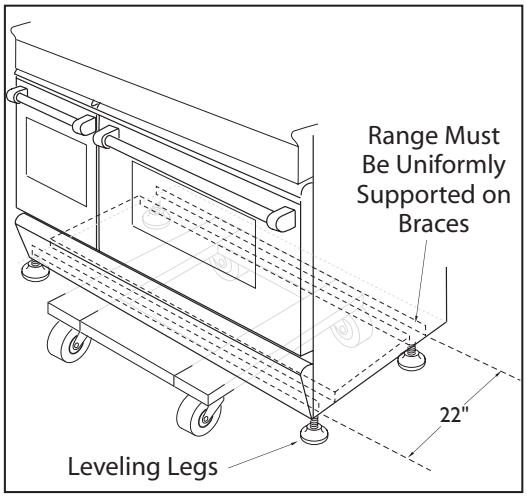


Fig. 3

Due to the weight, a dolly with soft wheels should be used to move this unit. The weight must be supported, uniformly across the bottom (fig. 3). To remove the door, open the door and hold it all the way open. Close the hinge latches (fig. 4 pg. 7) and release the door. The door can then be removed by gently lifting and pulling the door, with the hinges up and out of the frame.

Electric and gas connections should be made (see page 13 & 14) before the range is slid into the cabinet opening. If installing a full backguard with the range it should also be installed before the range is placed in its final position (refer to page 5) for proper performance, the professional range should be level. To achieve a flush fit of the range to adjoining countertops, it will be necessary to have level cabinets (front to back, and left to right across opening of the range).

UNPACKING AND HANDLING

After checking the countertops for level and before sliding the range into place, measure the distance from the floor to the top of the counter work surface in the rear left and right corners. Adjust the corresponding rear corner of the range to an equal height of the counter, as the rear leveling legs are not accessible once the range is pushed into place. Once the range is in place, the front leg levelers can be accessed to level the front of the range. Replace the kick panel and oven doors by reversing the procedure described previously. It is important that the two screws retaining the kick panel are secure to prevent accidental access to live electrical components and wires (fig. 1 pg. 5).

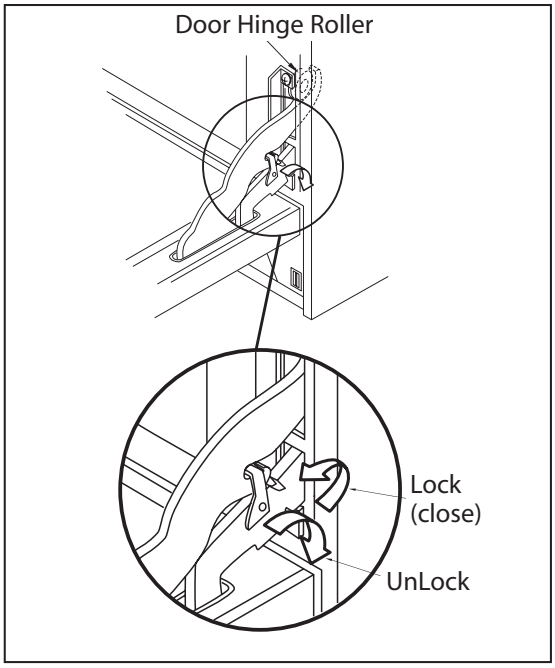


Fig. 4

GRIDDLE AND GRILL LEVEL ADJUSTMENTS

The grill and griddle sections (if equipped) are fastened in place at the front with screws. They are designed to be stationary and not meant to be removed for cleaning. The griddle has two leveling screws beneath the rear flue cover which can be used to adjust the griddle to the desired slope. To access the leveling adjustment screws, remove the griddle flue cover by lifting upwards. The center screw is for shipping and should be removed.

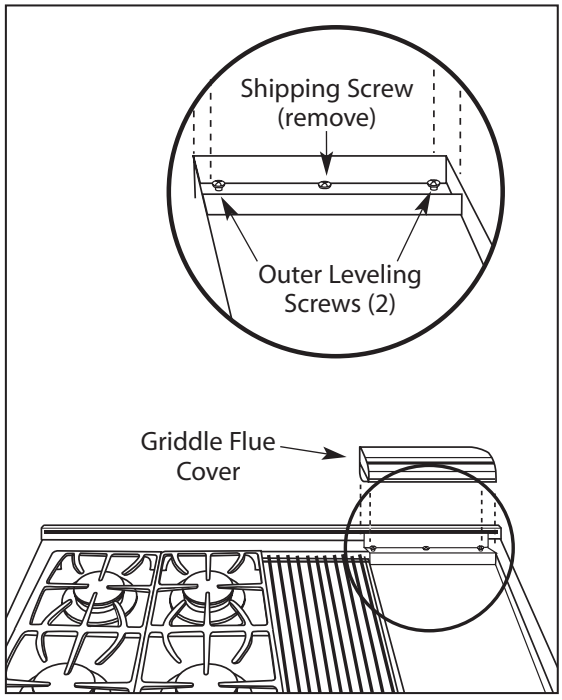


Fig. 5

VENTILATION REQUIREMENTS

STEP 2:

A suitable exhaust hood must be installed above the range. The following chart indicates the minimum blower capacity recommended for hood ventilation.

VENTILATION UNIT	STANDARD COUNTER INSTALLATION RECOMMENDATIONS	ISLAND INSTALLATION RECOMMENDATIONS
HOOD	(24" Deep x Unit Width)	(30" Deep x 36" at Bottom)
BLOWER	***48" RANGE** 800-1200 CFM	800-1200 CFM
	****36" RANGE** 600-800 CFM	600-1200 CFM
	30" RANGE 500 CFM	500 CFM

* When installing a unit featuring a grill, select a blower on the high end of recommendation.

** For all 36" Range GL models a 1200 CFM ventilation unit is required.

CAUTION:

Ventilation hoods and blowers are designed for use with single wall ducting. However, some local building codes or inspectors may require double wall ducting. Consult local building codes and/or local agencies, before starting, to ensure that hood and duct installation will meet local requirements.

Hood blower speeds should be variable to reduce noise and loss of heated or air conditioned household air when maximum ventilation is not required. Normally, the maximum blower speed is only required when using the grill.

For best smoke elimination, the lower edge of the hood should be installed a minimum of 30" to a maximum of 36" above the range cooking surface, (page 10 & 11). If the hood contains any combustible materials (i.e. a wood covering) it must be a minimum of 36" above the cooking surface.

Due to a high volume of ventilation air, a source of outside replacement air is recommended. This is particularly important for tightly sealed and insulated homes. A reputable heating and ventilating contractor should be consulted.

INSTALLING ANTI - TIP DEVICE

All ranges must have an anti-tip device correctly installed as per the following instructions. If you pull the range out from the wall for any reason, make sure that the device is properly engaged when you push the range back against the wall. If it is not, there is a possible risk of the range tipping over and causing injury if you or a child stand, sit or lean on an open oven door.

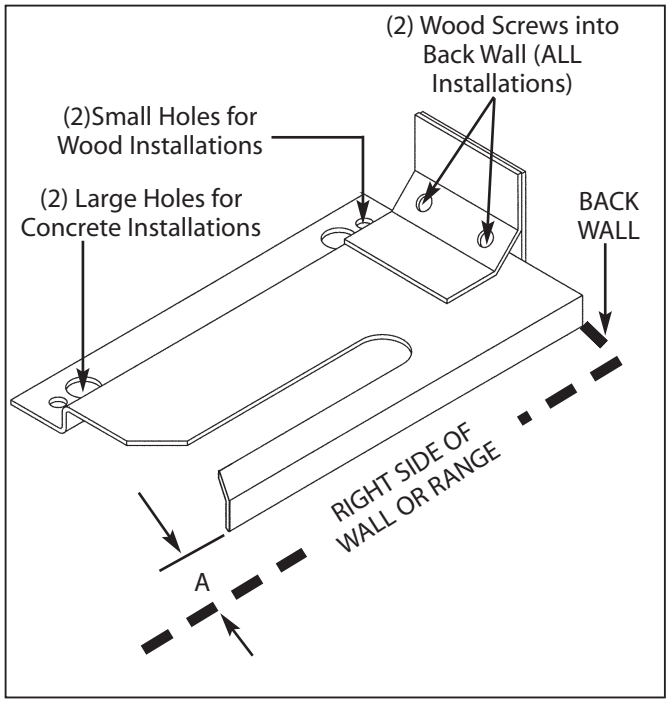

(2) Wood Screws into Back Wall (ALL Installations)
(2)Small Holes for Wood Installations
(2) Large Holes for Concrete Installations
BACK WALL
RIGHT SIDE OF WALL OR RANGE
A

Fig. 6

INCLUDED PARTS:

Included with this kit are:

(4) #10 x 2" wood screws,
(1) Anti-tip bracket, and (1) Installation Instructions.

INSTALLING THE KIT:

Instructions are provided for wood and cement floors. Any other type of construction may require special installation techniques as deemed necessary to provide adequate fastening of the Anti-tip bracket to the floor and wall. The use of this bracket does not preclude tipping of the range when not properly installed.

A=	1/2"	5/8"	7/8"
Model Series	RGS-48	RGS-36	RGS-305

WOOD CONSTRUCTION:

Place the bracket against the back wall, into the right rear corner where the range is to be located. Leave a gap between the wall (or side of range) and the bracket (see fig. 6). Drill (2) 1/8" diameter pilot holes in the center of the small holes. A nail or awl may be used if a drill is not available. Fasten the bracket securely to the floor and wall.

Fig. 7

CONCRETE OR CEMENT CONSTRUCTION:

Hardware Required:

(2) sleeve anchors, lag bolts, and washers (not provided). Locate the bracket as described above. Drill the recommended size holes for the hardware. Install the sleeve anchors into the holes and then install the lag bolts through the bracket. The bolts must be properly tightened as recommended for the hardware. Fasten the bracket securely to the floor and wall.

ONCE INSTALLED:

Complete the range installation per the instructions provided with the product. Check for proper installation of the range and Anti-tip device by grasping the back of the unit and carefully attempt to tilt the range forward.

STEP 4:

1) The range is a free standing unit. If the unit is to be placed adjacent to cabinets, the clearances shown in fig. 8 (RGS-48 & 36) & fig. 10 (RGS-305) are required. The same clearances apply to island installations.

2) The range can be placed in various positions with respect to the cabinet front, with the front either flush or projecting, depending on the countertop depth.

3) The gas and electrical supply should be within the zones shown (fig. 8, 10, & 14).

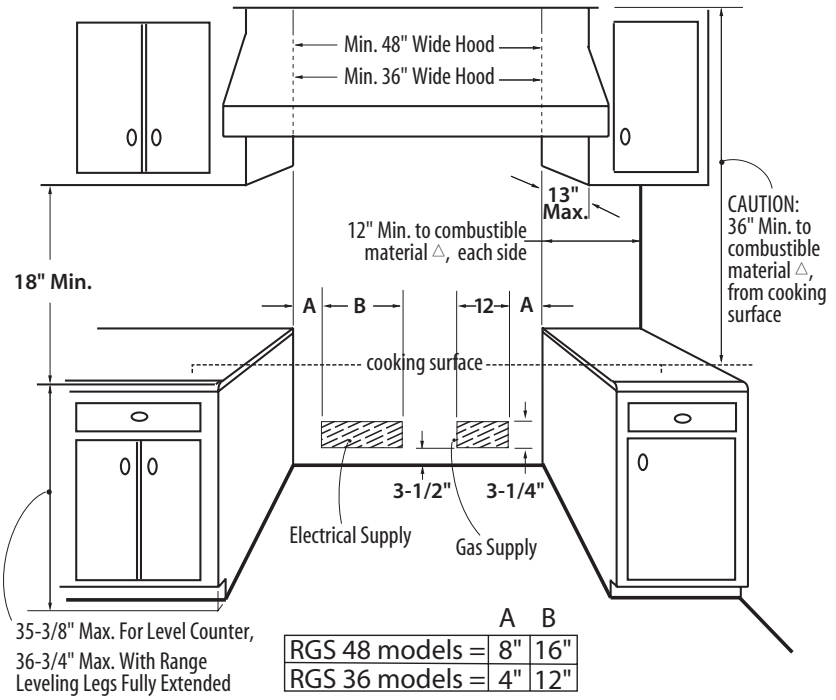
4) The maximum depth of over head cabinets installed on either side of the hood is 13".

5) Any openings in the wall behind the range and in the floor under the range must be sealed.

6) When there is less than a 12" clearance between combustible material and the back edge of the range, (above the cooking surface) a DCS backguard must be installed, (figs. 9A & B & 11 page 12 and 13). When clearance to combustible material is over 12" no backguard is necessary (fig. 9A page 11). Backguards must be ordered separately. Fig. 9A & 11, indicate the space required for each type of backguard.

7) Always keep the appliance area clear and free from combustible materials, gasoline and other flammable vapors and liquids.

8) Do not obstruct the flow of combustion and ventilation air to the unit.



	A	B
RGS 48 models =	8"	16"
RGS 36 models =	4"	12"

△ As defined in the "National Fuel Gas Code" (ANSI Z223.1, Latest Edition).

The range height is adjustable. The level of the range top must be at the same level or above the countertop level.

Fig. 8 RGS 48" & 36" Models Only

CABINET PREPARATION

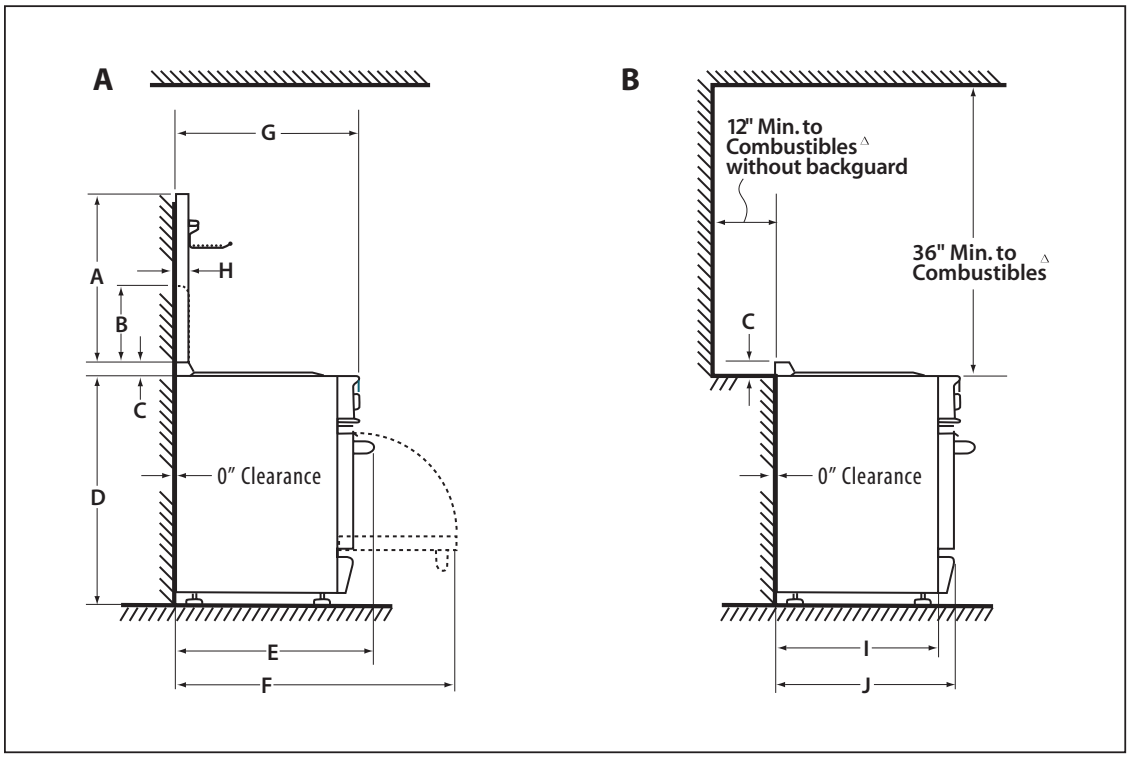


Fig. 9 RGS 48" & 36" Models Only

	A	B	C	D	E	F	G	H	I	J	WIDTH
RGS 48 Models	28-1/8"	10-1/8"	2"	35 1/2" min.-37" max.	30-1/4"	44-1/2"	28-1/4"	1-5/16"	25"	27-3/8"	47-7/8"
RGS 36 Models	28-1/8"	10-1/8"	2"	35 1/2" min.-37" max.	30-1/4"	44-1/2"	28-1/4"	1-5/16"	25"	27-3/8"	35-7/8"

CABINET PREPARATION

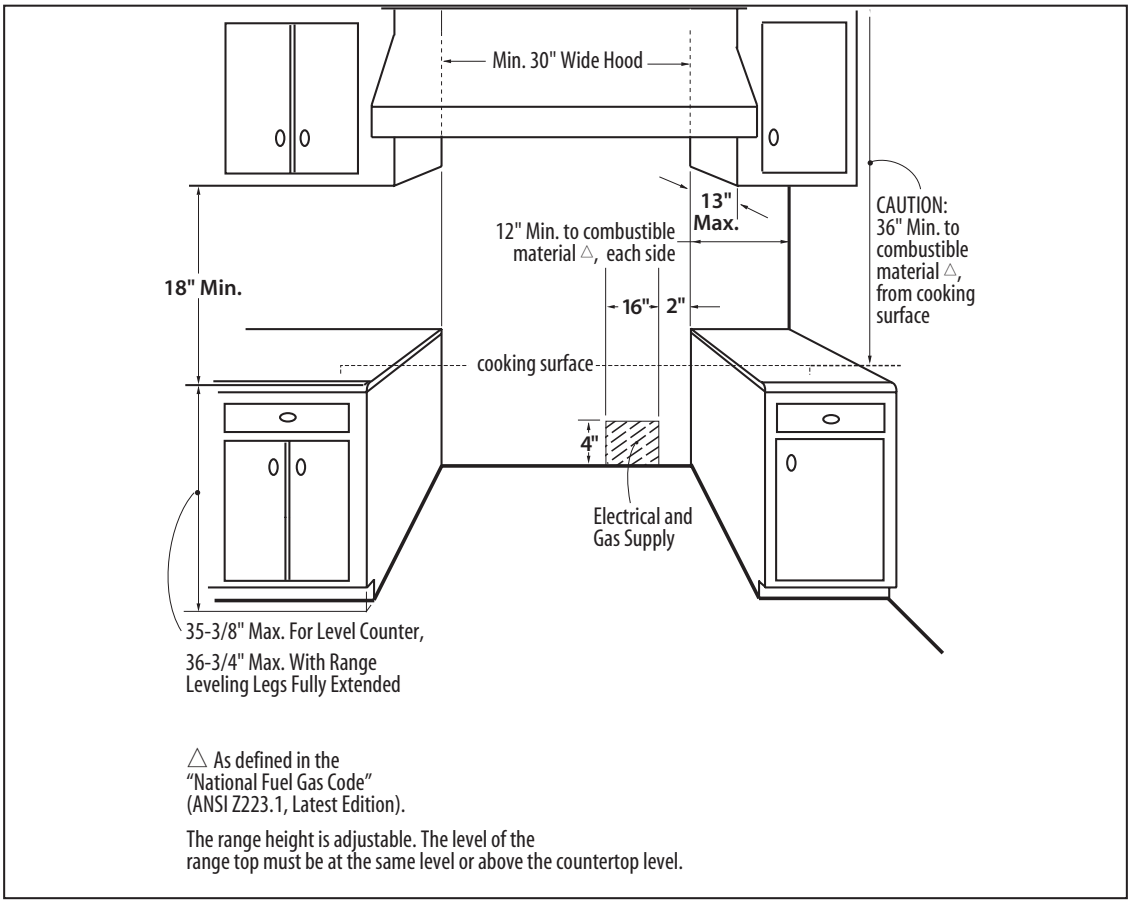


Fig. 10 RGS 305 Models Only

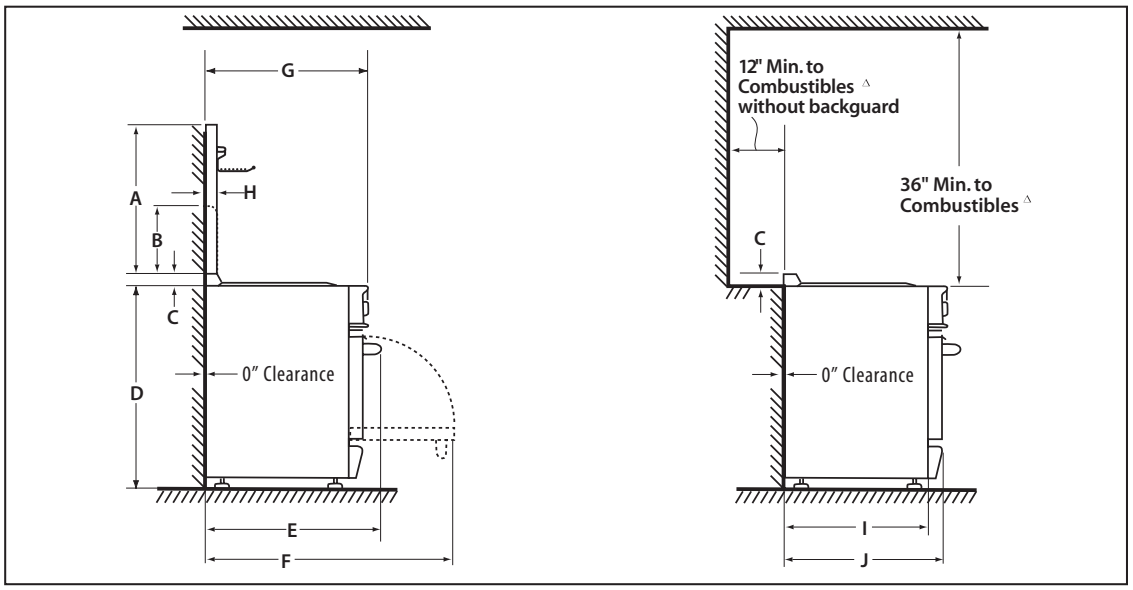


Fig. 11 RGS 305 Models Only

	A	B	C	D	E	F	G	H	I	J	WIDTH
RGS 305 Models	28-1/8"	10-1/8"	2"	35-1/2" min. 37" max.	30"	44"	27-1/2"	1-5/16"	24-1/4"	26-3/4"	29-7/8"

BACKGUARD INSTALLATION

BACKGUARD KITS:

The backguard is located as shown in Fig. 12. Secure the backguard to the wall behind the range. Specific instructions for installation of the full backguard or low backguard can be found packaged with the backguard. See also page 5, "Planning The Installation Section". A backguard must be installed when there is less than a 12" clearance between combustibles and the back of the range (above the cooking surface) see fig. 11.

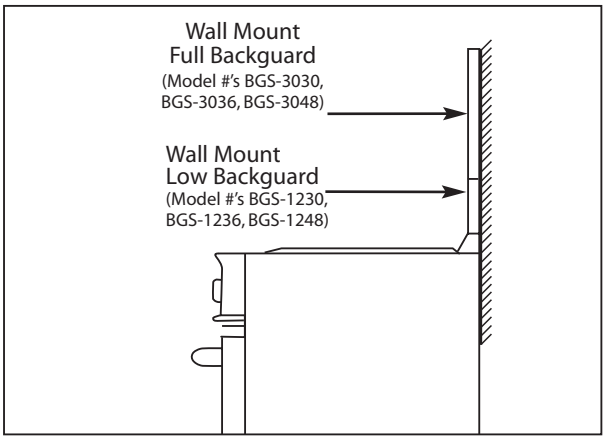


Fig. 12

ELECTRICAL / GAS CONNECTIONS

STEP 5:

ELECTRICAL CONNECTIONS

Power Requirements Range:

- 120 VAC, 60 Hz., single phase
- RGS-305: 4 Amp. Max.
- RGS-36: 7 Amp. Max.
- RGS-48: 13 Amp. Max.
  (use 15 Amp. circuit)

Always disconnect electric supply cord from the wall outlet or service disconnect before servicing this appliance. Observe all governing codes and ordinances when grounding, in absence of which, observe National Electrical Code ANSI / NFPA No. 70-1990.

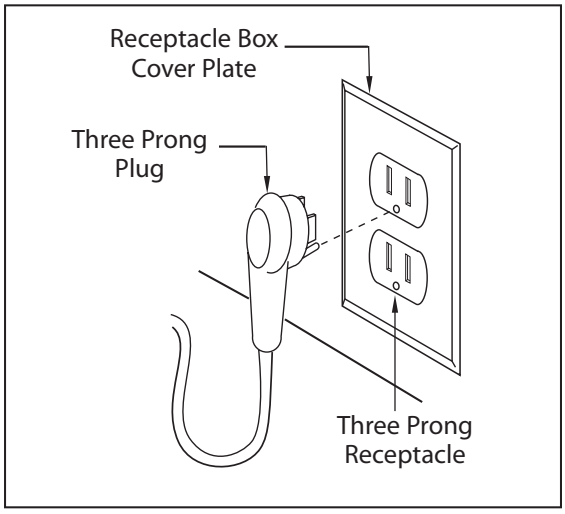


Fig. 13

RECOMMENDED GROUNDING METHOD

This appliance is factory equipped with a power supply cord with a three-prong grounding plug (with polarized parallel blades). It must be plugged into a mating grounding, type receptacle, connected to a correctly polarized 120 volt circuit. If the circuit does not have a grounding type receptacle, it is the responsibility and obligation of the installer to have the existing receptacle changed to a properly grounded and polarized receptacle in accordance with all applicable local codes and ordinances by a qualified electrician. In the absence of local codes and ordinances, the receptacle replacement shall be in accordance with the National Electrical Code.

- The third prong should not, under ANY circumstances, be cut or removed.

ELECTRICAL / GAS CONNECTIONS

GAS REQUIREMENTS

Verify the type of gas supplied to the location. The range are shipped from the factory set up and adjusted for natural gas or LP (propane), depending on specific model ordered. The unit CANNOT be converted.

NATURAL GAS

- Connection: 1/2" N.P.T. Minimum 5/8" dia. flex line.
- Pressure: 6" to 14" W.C.

LP GAS

- Connection: 1/2" N.P.T. Minimum 5/8 dia. flex line.
- Pressure: 11" to 14" W.C.

A regulator is required at the LP source to provide a maximum of 14" W.C. to the range regulator.

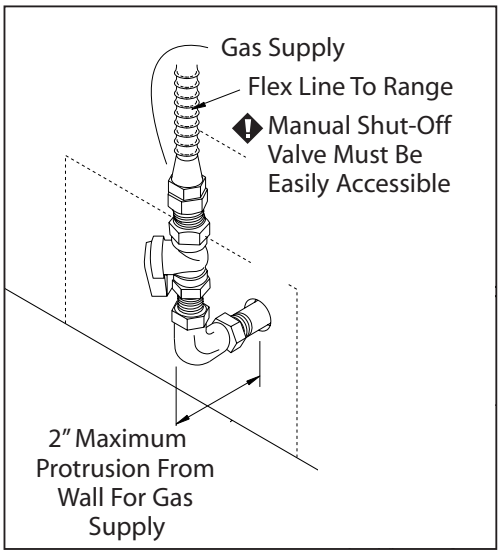

Gas Supply
Flex Line To Range
Manual Shut-Off Valve Must Be Easily Accessible
2" Maximum Protrusion From Wall For Gas Supply

Fig. 14 All RGS Models

HOOK-UP

A manual valve must be installed external to the appliance, in an accessible location from the front for the purpose of shutting off the gas supply. The supply line must not protrude beyond the back of the unit. Make sure the gas supply is turned off at the wall valve before connecting the appliance.

The gas supply connections should be made by a qualified technician and in accordance with local codes or ordinances. In the absence of a local code, the installation must conform to the National Fuel Gas Code ANSI 223.-1988, latest edition.

NOTE: The flex line for the gas supply must be metal and be approved by an approved certifying agency (AGA, CGA, CSA, or UL). Never use a hose made of rubber or other synthetic material, as the heat may cause the hose to melt and develop leaks.

CAUTION:

The appliance must be isolated from the building's gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5kPa.).

The appliance and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of the system at the test pressures in excess of 1/2 psig (3.5kPa.). When checking the manifold gas pressure, the inlet pressure to the regulator should be at least 7.0" W.C. for natural gas or 12.0" for LP.

TEST AND ADJUSTMENTS

STEP 6:

CAUTION:

For Warranty coverage, DCS requires that burner adjustments be made by a qualified technician at the time of installation. Extreme care should be used when adjustments are made after installation. Improper or lack of adjustments will void your warranty.

AIR SHUTTER ADJUSTMENT (Oven, Griddle or Grill only)

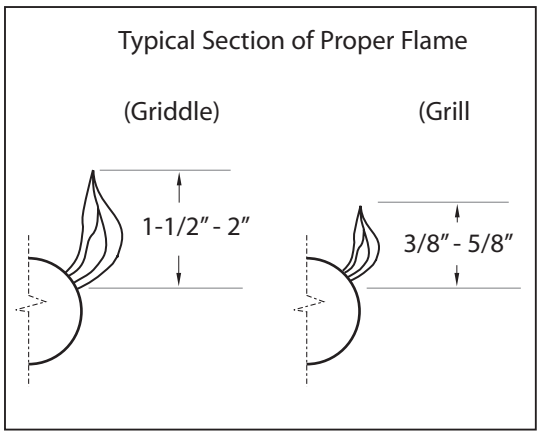


Fig. 15

Check for the proper burner flame characteristics and adjust air shutters if necessary (fig. 15). Each valve and air shutter is individually tested and adjusted prior to shipment. Normally adjustment is not required, however, vibration during transit, gas conversion or variations in the local gas supply may make minor adjustments necessary. Burner flames should be blue and stable with no yellow tips, excessive noise or lifting of the flame from the burner. If any of these conditions exist, check that the air shutter or burner ports are not blocked. If this condition persists, adjust the air shutter as required. If the flame is too yellow, indicating insufficient air, adjust the shutter counterclockwise to increase air inlet. If the flame is noisy or tends to lift away from the burner, indicating too much air, turn the shutter clockwise to reduce air. The open burner flames should be approximately 1-1/2" high. The griddle flames should be 1-1/2" to 2". The grill burner flames should be 3/8" to 5/8" (fig. 15).

SURFACE BURNERS

The surface burners are not adjustable. Proper operation is achieved when the correct orifices for gas supply are installed at the factory, based on model ordered.

- If the open top burner does not ignite, check the spark igniter by listening for a clicking sound. If you do not hear the igniter click, turn off the burner. Check for a tripped circuit breaker, blown fuse, or poor wire connection to the igniter.

TO CLEAN EXTERIOR SURFACES

The stainless steel surfaces may be cleaned by wiping with a damp soapy cloth. Any mild glass cleaner will remove fingerprints and smears. Do not use steel wool as it will scratch this surface. Small scratches may be removed by lightly sanding, with the grain, using 120 grit paper.

INSTALLER FINAL CHECKLIST

GENERAL

❑ Placement of unit.

❑ Specified clearance maintained to cabinet surfaces.

❑ Unit Level - front to back, side to side.

❑ All packaging material and tie straps removed, drip pans clean and empty.

❑ Backguard attached if there is less than 12" clearance above the cooking surface to combustibles behind unit.

❑ Radiant tray placed in grill unit (if equipped). The two grill racks in place.

ELECTRICAL

❑ Receptacle with 15 ampere over-current protection is provided for service cord connection.

❑ Adequate ground connection.

❑ Front kick panel in place and two (2) screws secure.

GAS SUPPLY

❑ Connection: 1/2 NPT with a minimum 5/8" diameter flex line. Site gas supply is compatible with range model, & sufficient pressure is available (see gas requirements pg. 13).

❑ Manual gas shut-off valve installed in an accessible location.

❑ Unit tested and free of gas leaks.

OPERATION

❑ All internal packing materials removed. Check below grate, pans and drip drawers.

❑ Grill compartment seated and does not rock (not all models).

❑ Bezels centered on burner knobs and knobs turn freely.

❑ Each burner lights satisfactorily, both individually and with other burners.

❑ Flame adjustment made on air shutter of each oven, griddle, or grill burner, (fig. 15).

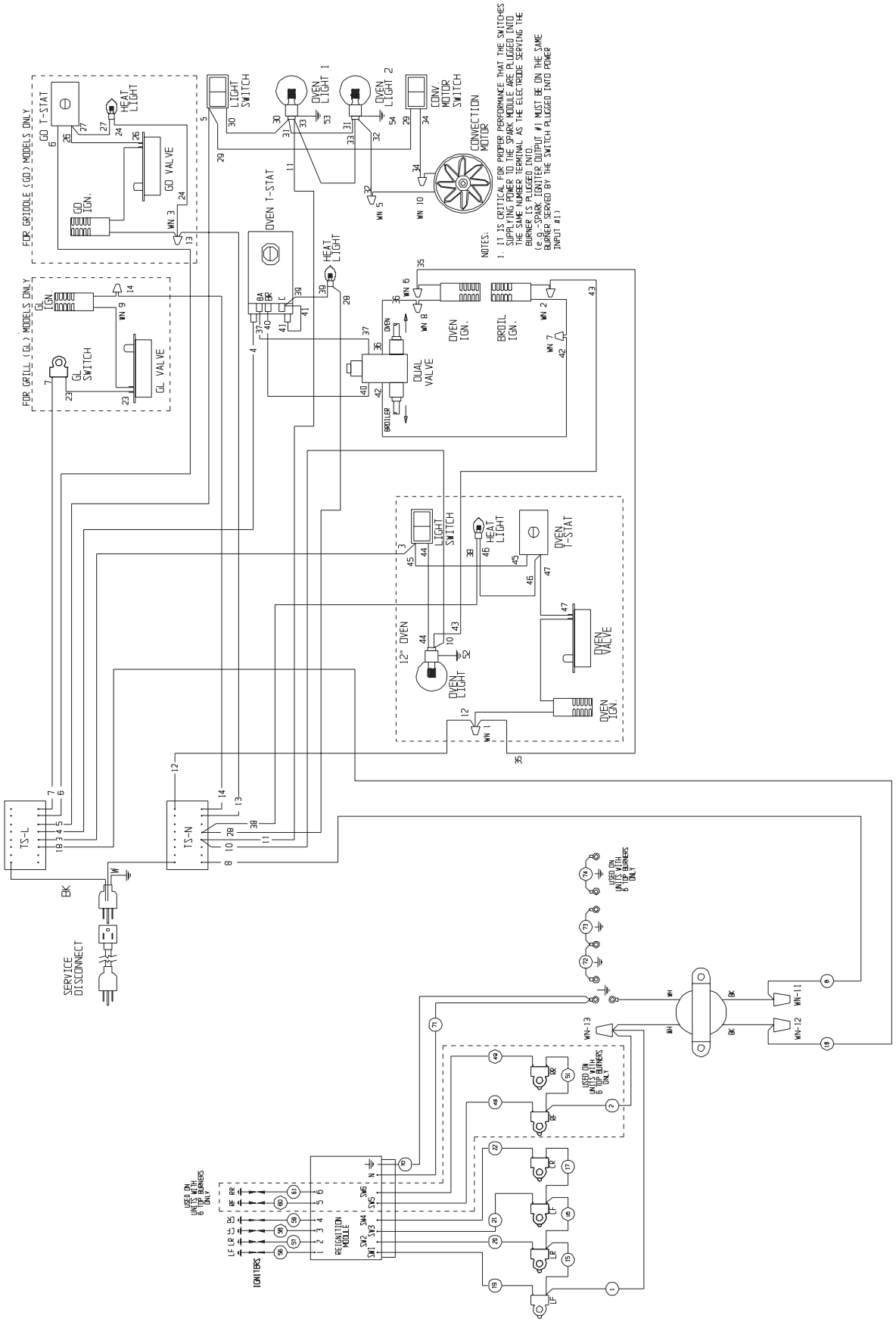
❑ Griddle is level and does not rock (not all models).

❑ Drip trays are properly in place and pull out freely (Not all models).

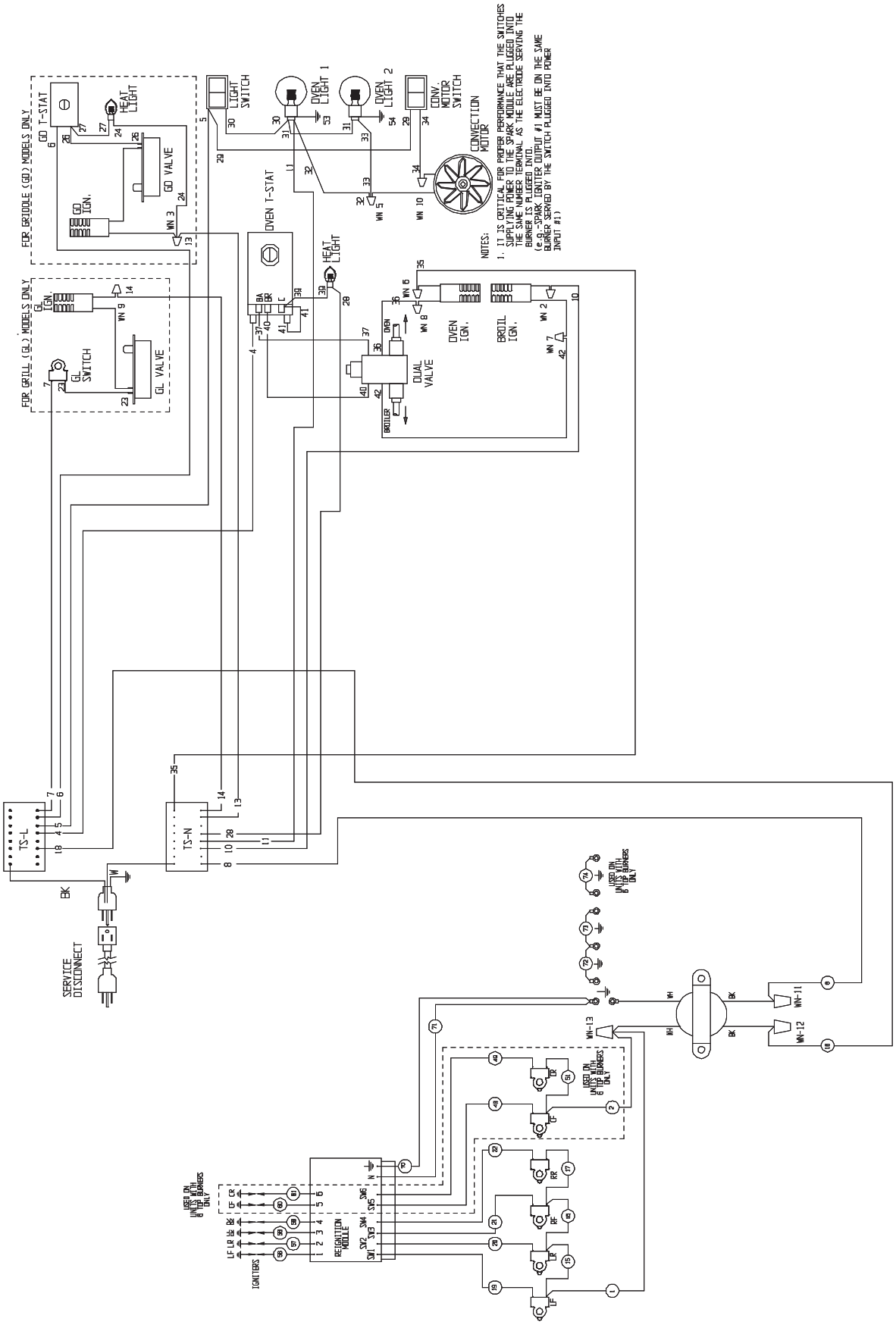
❑ Oven door hinges seated and door opens and closes properly.

❑ Burner grates correctly positioned, level, and do not rock.

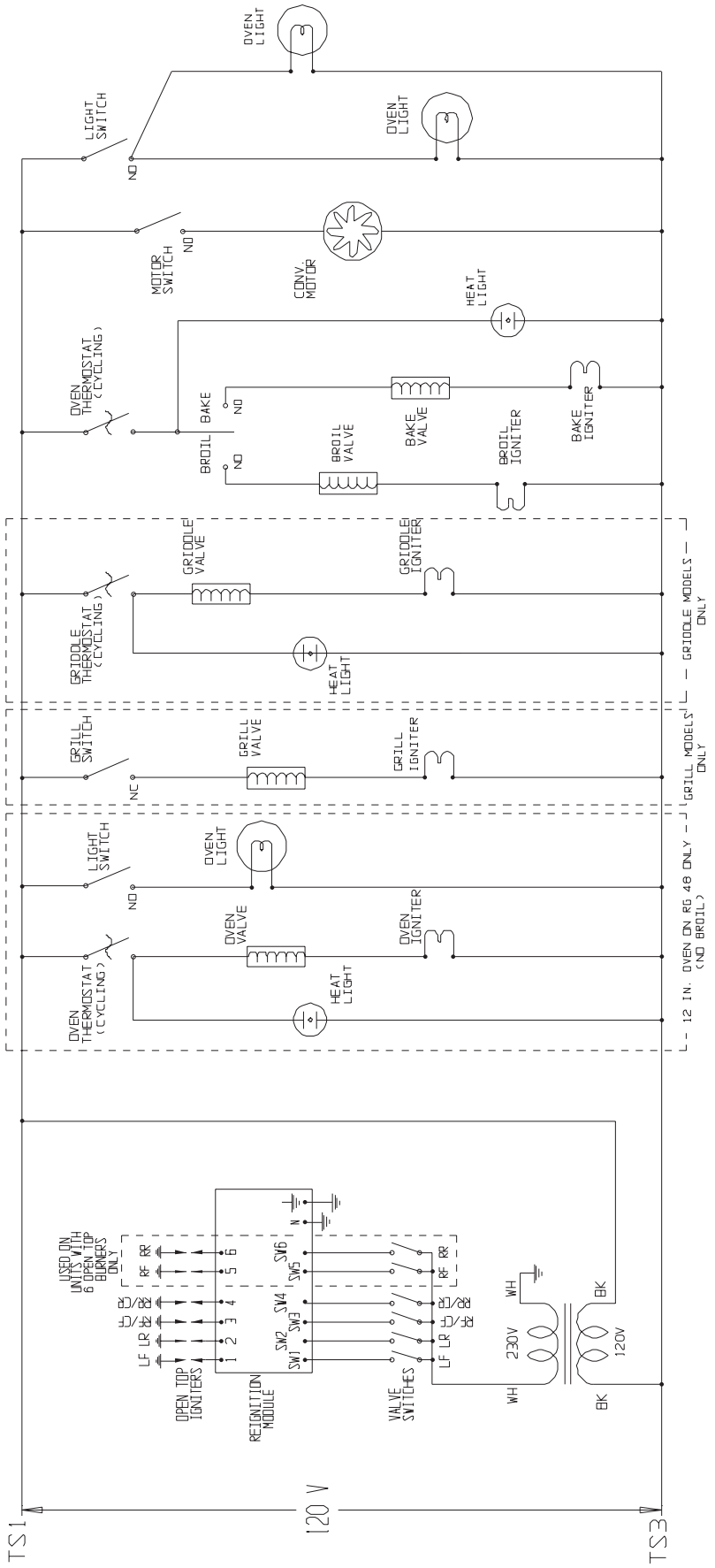
RGS-48 WIRING DIAGRAM



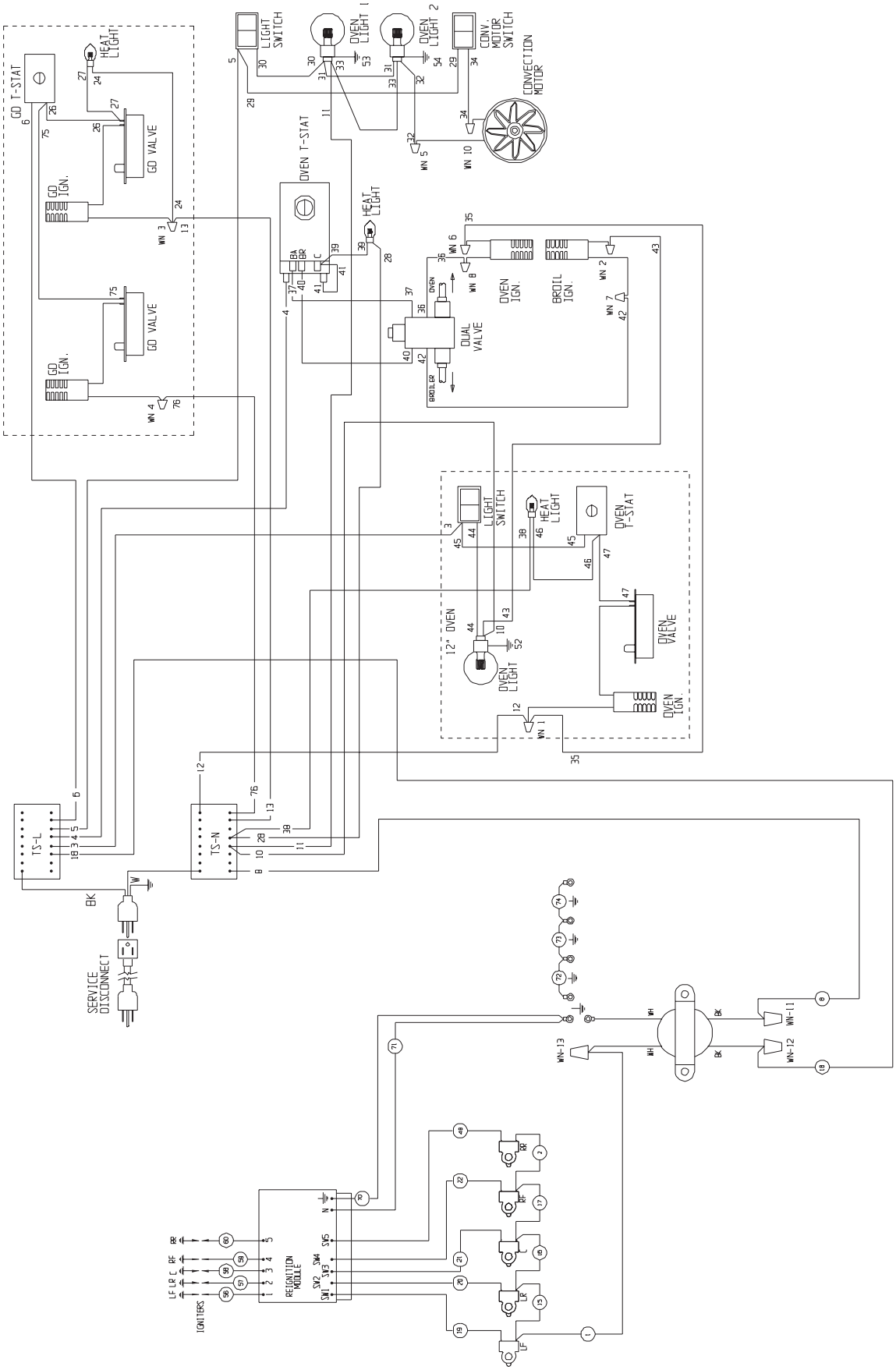
RGS-36 WIRING DIAGRAM



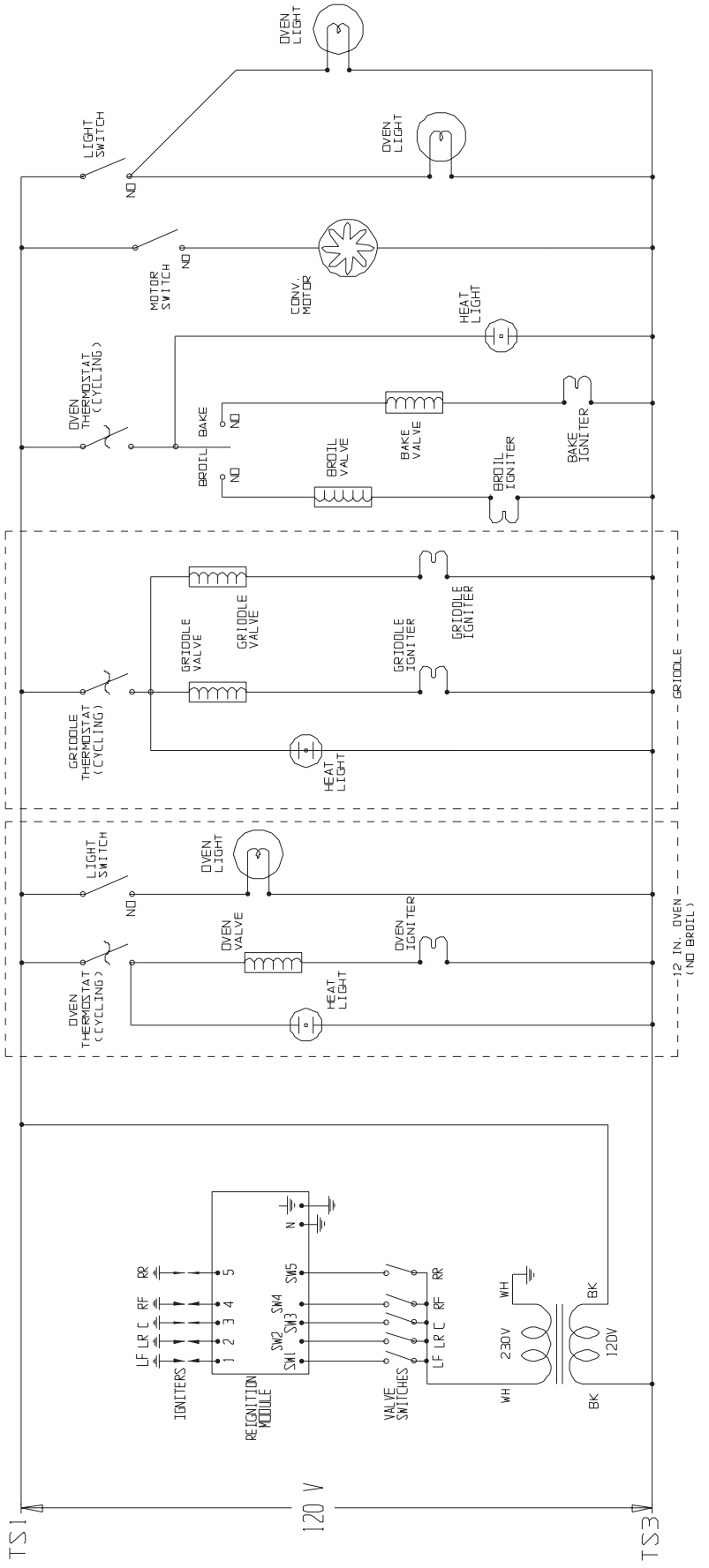
RGS-48/36 SCHEMATIC



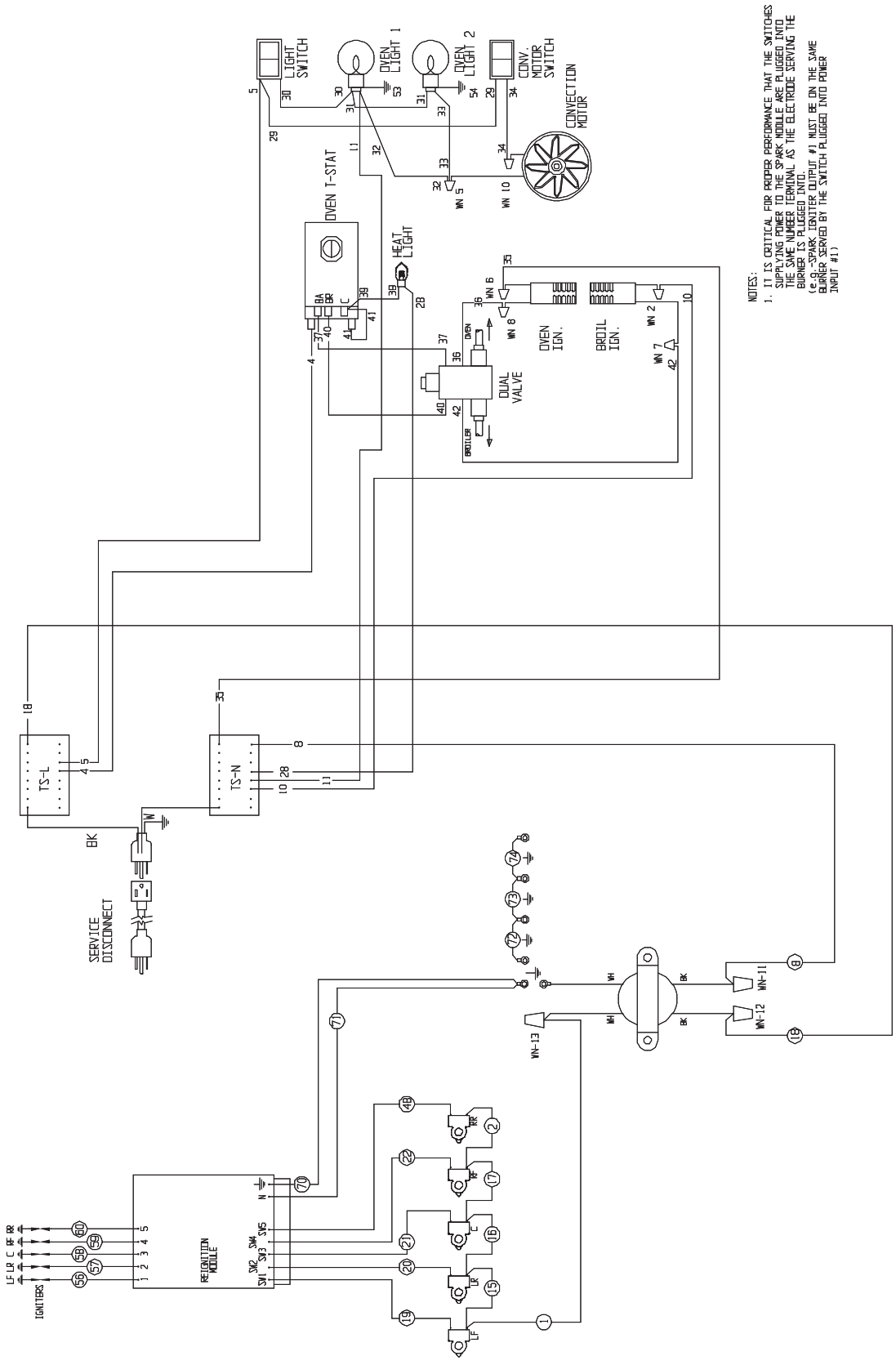
RGS-485 WIRING DIAGRAM



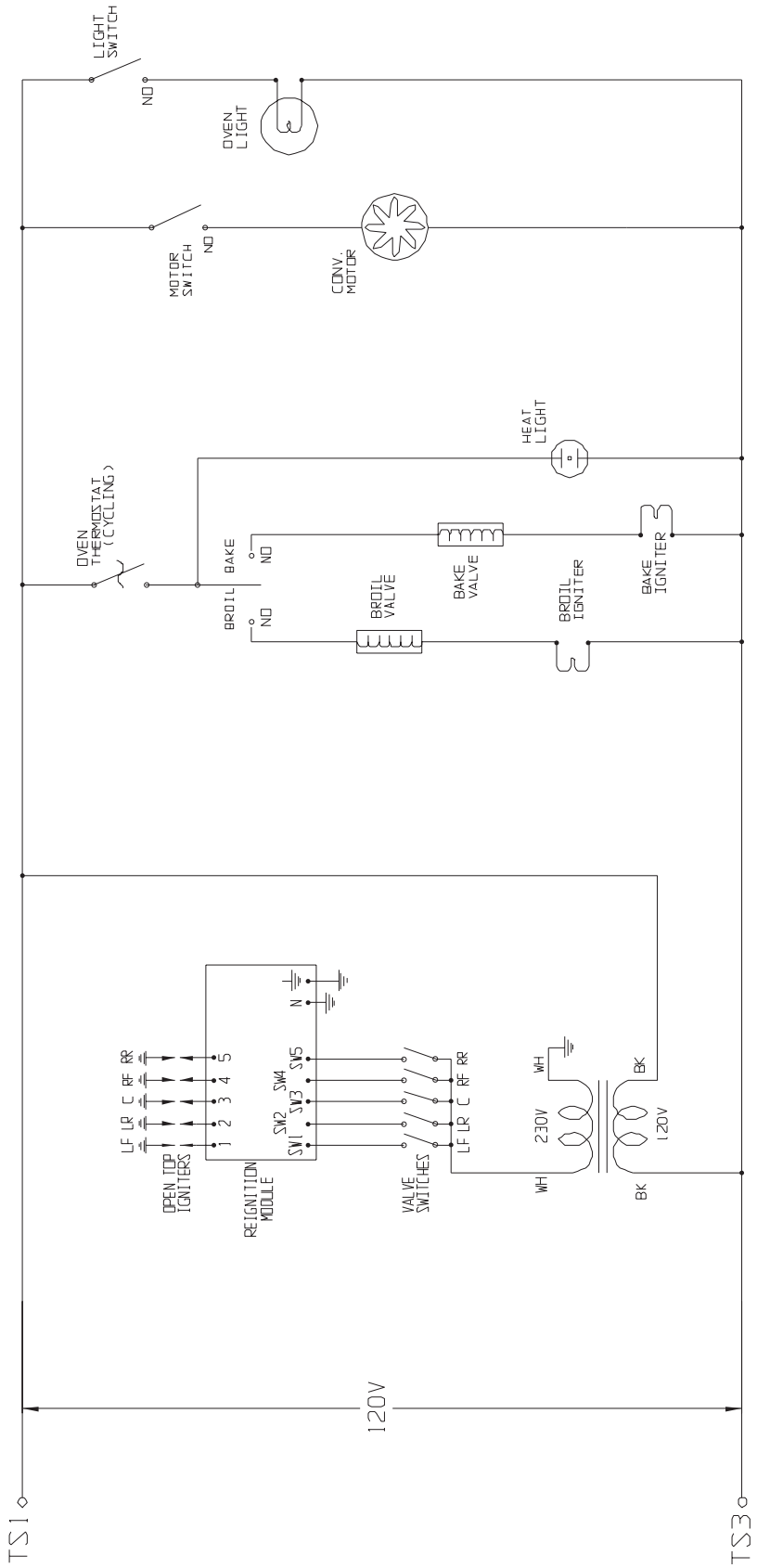
RGS-485 SCHEMATIC



RGS-305 WIRING DIAGRAM


NOTES:
1. IT IS CRITICAL FOR PROPER PERFORMANCE THAT THE SWITCHES SUPPLYING POWER TO THE SPARK MODULE ARE PLUGGED INTO THE SAME NUMBER TERMINAL AS THE ELECTRODE SERVING THE BURNER IS PLUGGED INTO. (e.g.-SPARK IGNITER OUTPUT #1 MUST BE ON THE SAME BURNER SERVED BY THE SWITCH PLUGGED INTO POWER INPUT #1)
LIGHT SWITCH
OVEN LIGHT 1
OVEN LIGHT 2
CONV. MOTOR SWITCH
CONVECTION MOTOR
OVEN T-STAT
HEAT LIGHT
DUAL VALVE
OVEN IGN.
BROIL IGN.
TS-L
TS-N
SERVICE DISCONNECT
IGNITERS
IGNITION MODULE

RGS-305 SCHEMATIC



HOW TO OBTAIN SERVICE

For warranty service, contact DCS Customer Service at (888) 281-5698. Before you call, please have the following information ready:

- Model Number
- Serial Number
- Date of installation
- A brief description of the problem

Your satisfaction is of the utmost importance to us. If a problem cannot be resolved to your satisfaction, please write or fax us at:

Write:

DCS
Attention: Consumer Relations
5800 Skylab Road
Huntington Beach, CA 92647

Fax us at: (714) 372-7004

email: support@dcsappliances.com

BEFORE YOU CALL FOR SERVICE:

1) Is the circuit breaker tipped or the fuse blown?
2) Is there a power outage in the area?

WARRANTY

Length of Warranty:

One (1) Year Full parts and Labor Covers the entire product.

Five (5) Year Surface burners, oven burner.

Ten (10) Year Porcelain oven, porcelain inner door panel. Oven racks and grates.

DCS Will Pay For

All repair labor and parts found to be defective due to materials or workmanship for one full year "IN HOME" warranty during the first year of ownership. This does not apply if the unit was subjected to other than normal household use. Service must be provided by Authorized Factory Agent during normal working hours. No charges will be made for repair or replacement at the location of initial installation or factory for parts returned pre-paid, through the dealer and claimed within the warranty period, and found by DCS to be defective.

Replacement will be F.O.B. DCS, and DCS will not be liable for any transportation costs, labor costs, or export duties. This warranty shall not apply, nor can we assume responsibility for damage that might result from failure to follow manufactures instructions or local codes, where the appliance has been tampered with or altered in anyway or which, in our judgement, has been subjected to misuse, negligence, or accident. Implied warranty shall not extend beyond the duration of this written warranty. This warranty is in lieu of all warranties expressed or implied and all other obligations or liability in connection with the sale of this appliance.

DCS Will Not Pay For

- Installation or start-up.
- Shipping damage.
- Service by an unauthorized agency.
- Damage or repairs due to service by an unauthorized agency or the use of unauthorized parts.
- Service during other than normal working hours.
- Improper installation, such as improper hook-up, etc.
- Service visits to teach you how to use the appliance; correct the installation; reset circuit breakers or replace home fuses.
- Repairs due to other than normal household use.
- Damage caused from accident, abuse, alteration, misuse, incorrect installation or installation not in accordance with local codes.
- Units installed in non-residential application such as day care centers, bed and breakfast centers, churches, nursing homes, restaurants, hotels, schools, etc.

This warranty applies to appliances used in residential applications; it does not cover their use in commercial situations. This warranty is for products purchased and retained in the 50 states of the U.S.A., the District of Columbia and Canada. This warranty applies even if you should move during the warranty period. Should the appliance be sold by the original purchaser during the warranty period, the new owner continues to be protected until the expiration date of the original purchaser's warranty period. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

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PERFECT HEAT.

5800 Skylab Road, Huntington Beach, CA 92647
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Customer Service: (888) 281-5698
www.dcsappliances.com

As product improvement is an ongoing process at DCS, we reserve the right to change specifications or design without notice.

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Litho in USA 08/2002